
Request No. AG-4-1 (Gas)
Please provide a complete copy of the depreciation study and workpapers used to determine the depreciation accrual rates currently being used by the Company, including all of the curve analyses for each plant account along with the resulting statistics. Please also provide the assumed average service life and net salvage value used to determine the existing accrual rates.

Response:
Please see Attachment AG-4-1 (Gas) for a copy of the last Depreciation Study used to determine the depreciation accrual rates for the Gas Division.

Person Responsible: James H. Aikman

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

DEPRECIATION OF PROPERTY

ORIGINAL COST AS OF DECEMBER 31, 1997

Prepared by

Raytheon ENGINEERS & CONSTRUCTORS, INC.

May 1998

Project Manager

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FITCHBURG GAS AND ELECTRIC LIGHT COMPANY
DEPRECIATION OF ELECTRIC AND GAS PROPERTY

ORIGINAL COST AS OF DECEMBER 31, 1997

I. SUMMARY

This report presents the results of the Raytheon Engineers & Constructors, Inc. (Raytheon) review of the annual depreciation requirements for the electric and gas properties of the Fitchburg Gas and Electric Light Company (Company), a subsidiary of UNITIL Service Corporation. This study is based upon the original cost of utility property in service as of December 31, 1997, which includes the Company's partial ownership of the following generating units: New Haven Harbor Unit No. 1, W. F. Wyman Unit No. 4, and Millstone 3.

As of December 31, 1997, the total original cost of plant in service was $105,035,594; this is an increase of 122 percent from our last Depreciation Review completed in May 1984 for plant in service as of December 31, 1983. The total investment in depreciable plant, the basis of our computations, is $97,377,087. The difference is the Company's investment in Land and Land Rights, Amortized Property, Transportation Equipment, gas plant account 386 Other Property on Customers' Premises, and other non-depreciable plant. The investment in depreciable electric plant and allotted common plant, the basis for our computations, is $67,767,756. The investment in depreciable gas plant and allotted common plant, the basis for our computations, is $27,609,331.

The remaining life method was employed to calculate the annual depreciation expense for each primary plant account. This approach identifies the net undepreciated plant investment for each account and provides an equal annual depreciation amount to be recouped over the remaining life of the account. Functional group depreciation totals are obtained by the summation of all accounts in each function, while the summation of all functional group data in a property type identifies the annual depreciation expense for that property type.

The study results show the annual depreciation expense based on year-end plant in service to be $4,314,298 and yields an annual accrual percentage of 4.52. The composite annual depreciation expense calculation using the year-end findings applied to average plant in service yields $4,194,718. This figure is comparable to the Company's posted annual depreciation expense for 1997 of $2,711,976 (electric plant $2,010,558, gas plant $601,468 and common plant $99,950, or after allotment of common plant; electric plant $2,073,834 and gas plant $638,142). The proposed depreciation increase is $1,241,325.

The book depreciation reserve addressed in this review is $30,102,476 (electric plant $24,472,337, gas plant $5,223,221, and common plant $406,918) while the indicated reserve for depreciation has been calculated to be $43,628,915. The Company's book depreciation reserve is reported in it's monthly internal schedule 31C, figures which will be reported in the 1997 FERC Form No. 1: *ANNUAL REPORT OF MAJOR ELECTRIC UTILITIES, LICENSEES AND OTHERS* as well as in the annual 1997 Massachusetts DPU Report.

Raytheon considers the Company's book reserve to be deficient since the difference between booked and indicated reserves is $13,526,439 or 45 percent of the Company's book depreciation reserve. The depreciation reserve deficiency of the electric plant is $7,157,834 or 29 percent of the electric plant book depreciation reserve, and $6,368,605 or 45 percent of the gas plant book depreciation reserve.

Analysis of utility plant in service identifies a substantial difference between the presently utilized depreciation accrual rates and those calculated in this study. Raytheon recommends that the composite annual accrual for electric plant should be 4.37 percent rather that the 3.12 percent actually booked; for gas plant we recommend an annual rate of 4.84 percent rather than the 2.31 percent that was actually booked; and, for common plant we recommend an annual accrual rate of 5.17 percent rather than the 4.43 percent actually booked by the Company. Or, after allotting common plant an annual accrual rate of 4.39 percent for electric plant, and 4.84 percent for gas plant.

Property mix can change over time, rates of inflation vary and management forecasts may be altered to serve more updated needs. Therefore, the results of this depreciation review should be reexamined within three to five years.

The remaining life method as described later in this report recovers the difference between the indicated depreciation reserve and the Company's book reserve over the remaining service life of the plant investment. However, in regard to the Company's investment in depreicable gas plant, we believe a remaining life of 37 years is an unreasonably long period over which to recover this substantial deficiency. Therefore, Raytheon recommends a recovery period of 15 years.

II. PURPOSE AND SCOPE

This report presents the results of an original cost study made to provide an appropriate basis for book reserve reallocation and to determine the resulting annual depreciation expenses associated with electric, gas, and common plant capital investments of the Company. The annual depreciation expense for each depreciable plant account was determined using the remaining life method. This method utilizes the original cost for each account, the net salvage estimate, the Company book depreciation reserve, and the statistically derived remaining life.

Depreciation is the concept, or means whereby the original capital investment in a fixed asset is recovered over the productive life of the asset by annual expense provisions determined using an accepted accrual method. For a utility, the accrual method should correspond to the decrease in the asset's economic usefulness so that current rate tariffs include costs of capital recovery proportionate to the total plant investment required to service present customers.

The original cost upon which this report is based is reported in the Company's internal schedules 31B and 31C and will eventually be reported in the *Federal Energy Regulatory Commission (FERC), Form 1 for the year ended December 31, 1997* and the *Return of the Fitchburg Gas and Electric Light Company to the Department of Public Utilities of Massachusetts* for the year ended December 31, 1997. Two Balance Sheet accounts identify the property under study, Account 101–Utility Plant in Service, and Account 106–Completed Construction Not Classified. The gas plant account designations used in this report are those prescribed by the Department of Public Utilities of Massachusetts in its *Uniform System of Accounts for Gas Companies* which went into effect on January 1, 1961.

The procedure most generally followed by the utility industry for the determination of depreciation requirements calls for the selection of a mortality dispersion curve (in most utility regulatory jurisdictions, an Iowa curve), average service life and net salvage percentage for each primary plant account. These elements are established after consideration of pertinent factors such as the results of analyses of historical Company records, management plans concerning premature retirements, the impact of environmental regulations, observations obtained from an inspection of physical property, practices of the utility industry, and Raytheon's experience in the depreciation field. All of these factors must be weighed in order to obtain the final selection of curve types, average service lives, and net salvage percentages that might be expected to be maintained in the future.

Since many depreciation considerations are subjective, the measurement of depreciation cannot be thought of as an exact science. For this reason, good practice requires that the statistical analyses of historical experience be used as a guide and that the results of those analyses be combined with the analyst's judgment.

III. DEPRECIATION CONCEPTS

A. Straight-Line Principles

Our depreciation expense conclusions are premised on the straight-line method of cost recovery of the depreciable asset. The basic principle of the straight-line method for determining depreciation for a unit of physical property is that the annual charges for depreciation are distributed uniformly over the estimated service life of the unit. The underlying assumption is that the condition of a unit is directly proportional to its years in service. As applied to a single unit of property, this would mean that the accumulated depreciation on the unit at any age would bear the same relationship to the cost of the unit as the unit's age bears to the estimated life of that unit.

The remaining life method refines the underlying assumption of straight-line methodology, equateing condition with age. Using this approach, the accumulated book depreciation is allocated to each plant account as of the study date, and the equal annual accrual to be recouped over the estimated remaining life of the account is determined. Each subsequent review of the Company's depreciation status revises the depreciation requirements based on changes in the Iowa mortality curves, average service lives, and net salvage percentages. The result of a series of reviews is a monitoring process, which evaluates the accrued and annual depreciation provisions on a regular basis.

B. Depreciation Terms and Techniques

Depreciation terminology used in this study is in accordance with the definitions appearing in the Department of Public Utilities of Massachusetts publication entitled, *Uniform System of Accounts for Gas Companies.*

The relevant definitions are as follows:

(1) Depreciation

" 'Depreciation', as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities."

(2) Service Value

" 'Service Value' means the difference between cost and the net salvage value of utility plant."

(3) Salvage Value

" 'Salvage Value' means the amount received for property retired, less any expenses incurred in connection with the sale or in preparing the property for sale, or, if retained, the amount at which the material recoverable is chargeable to materials and supplies, or other appropriate account."

(4) Cost of Removal

" 'Cost of Removal' means the cost of demolishing, dismantling, tearing down or otherwise removing utility plant, including the cost of transportation and handling incidental thereto."

(5) Service Life

" 'Service Life' means the time between the date utility plant is includible in utility plant in service or utility plant leased to others, and the date of its retirement. If depreciation is accounted for on a production basis rather than on a time basis, then service life should be measured in terms of the appropriate unit of production."

In our determination of depreciation, the "loss in service value" is equivalent to that portion of the original cost of plant in service which to-date has been recouped by means of annual appropriations to the depreciation reserve. Thus, the book balance of the reserve for depreciation as of December 31, 1997 was established as the "loss in service value" of the original plant investment.

Net salvage value is the result of combining the salvage value of an asset or group of property and its cost of removal. When salvage value exceeds cost of removal, this difference is referred to as positive net salvage; and when the converse is true, the difference is referred to as negative net salvage.

It is impractical to consider individually the service life and net salvage value of every unit of property. Similar items of property are therefore grouped together and depreciation calculations are based on the average mortality characteristics of the group. Items which are not one of a kind or unique within the property system of the utility can be arranged by the group concept. A group can be a primary plant account, subaccount, or functional group. In such a group, it is unlikely that all the individual units will be retired at the same age, but it is probable that some will be retired at ages less than the average service life and some at ages greater than the average service life.

Each group can have its deprecation requirements defined differently. To quantify these differences, a mathematical picture of the group is developed by assigning to it an average service life, an Iowa survivor curve, and a net salvage percentage. These three elements in conjunction with the aged plant for a group (surviving balances of prior years' gross additions) are the inputs required for the calculation of the accrued depreciation under the straight-line method.

C. Mortality Dispersion

Mortality dispersion is the probability distribution of retirements over a series of years. The shapes of curves of actual equipment-descriptive mortality dispersions often differ from the common bell-shaped or "normal" probability curve. As a result, studies have been made to derive more realistic mortality curves from empirical data to serve as interpolative models for curves developed from theoretical dispersions. Systems of curves resulting from the studies, such as the "Iowa" curves, the "O-Type" curves, the "Gompertz-Makeham" curves, and the "H-Type" curves, provide a basis for comparative interpretation of data on actual mortality experience.

The Iowa curves were among the first to be systematically developed and are the most commonly used in the utility industry. Bulletin 125, published by the Iowa Engineering Experiment Station at Iowa State College describes the development of the basic types of survivor curves and their applicability to industrial properties having a wide range of mortality characteristics. (Mortality or retirement curves may be thought of as the complements of survivor curves.) The original eighteen basic curves have been expanded to twenty-eight curves to provide more discrete gradations in the spectrum of possible retirement patterns. Since their publication, utility firms in particular have frequently used the Iowa curves for book depreciation calculations with the approval of most regulatory commissions. The curves have also been applied in computations for alternative tax depreciation considerations, economic proposals, rate of return studies, and in corporate computer modeling programs.

There are three separate groups, or families, of Iowa curves, each designated by the character of its modal (highest) retirement frequency: "L" for a left-moded curve, mode occurring at an age less that average life; and "S" for a symmetrical curve, mode occurring at an age equal to average life; and "R" for a right-moded curve, mode occurring at an age greater than average life. Further characteristics of these curves within a family of curves are identified by subscript numbers. Low subscripts indicate that a larger percentage of an original group of properties retires on an annual basis than is indicated for the higher subscripts. As a logical corollary, the modal frequency of retirements exhibited by the lower subscripted patterns at the modal age is not of as great a magnitude as for the higher subscripted patterns. Generally, low order patterns reflect greater retirement activity throughout life experience (broad dispersion), while high order patterns reflect most retirement activity at modal ages in the area of average life (narrow dispersion). There are two mortality curves which effectively represent the extremes of the continuum of patterns. The SC pattern reflects a constant percentage of the original group retiring each year over a cycle extending to twice average life (straight-line horizontal retirement curve). The SQ pattern reflects zero retirements each year until average life when the entire original group retires (straight-line vertical retirement curve).

The principle of allocating depreciation at a constant straight-line rate over the remaining years of service, when applied in a manner reflecting the mortality dispersion inherent in a group of property, will result in the determination of a depreciation expense consistent with the concept of recoupment of investment by the end of service life. However, when the reserve deficiency is unusually large and the remaining life of the plant is well into the future, a period less than remaining life may be suggusted to recover the deficiency.

D. Statistical Analysis Methods Used in the Derivation of Historical Life Characteristics

1. General Discussion

The selection of mortality curves and average lives for groups of property is based in part on historical retirement experience. In the past, the utility industry attempted to determine unit life characteristics by employing simple statistical procedures. These early approaches offered greater refinement than the results previously obtained by estimates based on limited data or physical observation. The advantages of these procedures were that they were appropriate to scarcity of the available accounting detail and the computations could be performed without excessive amounts of manpower, time, and cost. These methods are generally referred to as "turnover" methods.

As improved accounting records became available, modified actuarial procedures gained acceptance because the turnover methods based on incomplete accounting data produced results that were of limited value. With the increasing interest in the depreciation field, statistical techniques were improved and new ones developed. Likewise, the utility industry in its adherence to regulatory requirements and upon recognition of the potential internal benefits, installed property record systems. These new record systems supplied more detail than was previously available thereby expediting the gathering of up-to-date information which provided more accurate representation of the utility's property history. These factors, coupled with the labor and time saving advantages supplied by computers, enabled utilities to ultimately adopt statistical methods which provide historical life characteristics with greater validity.

The next sections describe the techniques used in our analyses. They are widely accepted by both the utility industry and regulatory commissions for the determination of historical life characteristics.

2. Simulated Plant Record - Balances Method

The Simulated Plant Record - Balances Method is an approach which derives an estimated average service life for a property group by comparing and imitating the group's historical activity with that produced by using generalized survivor data. This method varies the average life for each of the twenty-eight Iowa curves represented by the ratio of expected survivors of sequential ages over a life cycle, until the sum of squared differences between simulated balances and book balances is found to be minimized. This method attempts to simulate the volume of retirements for each vintage group from initial installation through the test year.

The computation procedure for the Simulated Plant Record - Balances Method is as follows:

(a) Compute the indicated surviving balances for each year by applying the factors from one of the survivor dispersion patterns (as related to an originally estimated average life) to the gross additions.

(b) Obtain the sum of the indicated surviving balances, as a selected points in time, from the contributing vintage additions to produce "simulated plant balances"; i.e., those plant balances which would have existed had the account exactly followed the life dispersion pattern.

(c) Compute the least square differences between actual and simulated year-end balances.

(d) Check to determine if a minimum sum has been observed for the subject and survivor dispersion pattern. If not, change the average life assumption and repeat the calculation procedure. If a minimum sum has been obtained, compute conformance and retirement indices.

(e) Compute rank based on above criteria.

Fifteen separate simulated balances are calculated for each test. This procedure is followed for all Iowa dispersion patterns and numerous average life assumptions; the "best fit" among them is considered to be that mortality pattern and average life which best describes the group's history.

Two indices are calculated to provide perspective to the "best fit" results. The Conformance Index provided in our statistical computer analysis is important in the ultimate selection of the historical curve type and estimated average service life for the account under analysis. The Conformance Index is defined as the ratio of the average of the year-end balances of an account, in the years for which balance comparisons have been made, to the standard error of estimate. The standard error of estimate is defined as the square root of the mean squared deviation between the simulated and actual balances. The Retirement Index is the ratio of the accumulated statistical retirements of the first year's additions to the total survivors in the first year of account activity. It is useful in determining the projected mortality characteristics for an account. These two indices aid in eliminating erratic data based upon poor conformance or insufficient retirement history.

The input data used in these historical analyses required the collection of gross plant activity information from the date of our last depreciation review to December 31, 1997 for each account. This effort included the collection of year-by-year schedules of gross additions, retirements, transfers, adjustments and year-end balances by the Company's plant accounting department. This data was adjusted as necessary by restating account adjustments and transfers from the transaction year to the proper year of activity. This procedure, commonly known as purifying gross plant activity, was required so that a record of all additions and retirements to their original dates of installation or termination from service for each account could be established. This data was collected by the Company's plant accounting personnel from accounting records and then analyzed by Raytheon.

3. Simulated Plant Record - Period Retirements Method

The Simulated Plant Record - Period Retirements Method was developed as a variant technique to liberate simulation analysis from the constraint of trying to simulate the total volume of retirements from the beginning of account history as a function of a single mortality pattern. It is known that an account may experience a shift in both mortality dispersion and average life characteristics over time, and this shift may not be detected by simulating the entire history of an account.

The Simulated Plant Record - Period Retirements Method seeks to discover the mortality pattern and associated average life which most reliably simulates the annual retirement volumes experienced in a plant account during specified periods of time. By the use of such a specific period approach, indicated results are expected to more closely reflect current accounting policies, maintenance policies, equipment characteristics, and possible external economic factors.

The computation procedure for the Simulated Plant Record - Period Retirements Method is as follows:

(a) Compute the indicated retirement from each vintage gross addition by applying the retirement factors (differences between successive survivor factors) for one of the dispersion patterns as related to an originally estimated life.

(b) Obtain the sum of the appropriate retirements, as of selected points in time, from the contributing additions to produce annual "simulated plant retirements" for the period under study. These would be the annual plant retirements during the study period, had the account exactly followed the life-dispersion pattern.

(c) Compute the least square differences between actual and simulated yearly retirements.

(d) Check to determine if a minimum sum has been obtained for the subject survivor dispersion pattern. If not, change the average life assumption and repeat the calculated procedure until a sum more closely approaches zero. If a minimum sum has been obtained, compute the conformance and retirement indices.

(e) Compute rank based on above criteria.

After following this procedure for all dispersion patterns and average life assumptions, the "best fit" among them is considered to be the mortality pattern and average life which best describes the group's history.

This analysis method effectively finds the trend line generated by a life-dispersion pattern which satisfies the two prime criteria of trend line fittings:

(a) That the total volume of subjected data (retirements for a period) has been simulated by the function, and

(b) That the individual annual retirement volumes have been best approximated (the best simulating function has a minimum sum of squared deviations of all functions tried).

Again, Conformance and Retirement Indices provided in our statistical computer analysis guide our judgment in the elimination of unreasonable solutions based upon poor conformance or insufficient retirement history. In this case, the numerator of the Conformance Index ratio is the average yearly retirement of the years for which the comparisons have been made.

The input data requirements for this method of analysis are exactly the same as for the Simulated Plant Record - Balances Method.

E. Engineering, Managerial and Other Qualifying Considerations

Despite the best analytical assessments of historical experience, the past may be of limited value in projecting the future of plant investments. This limitation can be due to not having experienced the complete useful life-cycles of plant in service, or due to the effects of external economic pressures and financing considerations. Engineering plans for retirement of specific plant investments coupled with the scheduling and the character of new plant investments influences the final interpretations of study indications. Additionally, knowledge of such plans aid in projecting probable future experience.

Accounting and financial policies may have affected past plant investment activity. Such policies can vary considerably from one utility to another and need to be known to fully understand any one utility's plant character. Among the facets of accounting and financial policy influencing historical data are the type and size of plant units currently and historically used, the manner of pricing retirements, the way in which plant adjustments are made, the timing of plant expansion plans, the age distribution of plant in service, the methods of accounting for salvage and costs of removal and the determination of what investment is capitalized or expensed. All of these elements affect any answer based on strict statistical analysis, and their evaluation can greatly improve the interpretation of statistical indications.

IV. FIELD INSPECTION

In addition to the results and conclusions obtained from the analyses of accounting records, consideration of management's plans and industry practices, an important criterion in the depreciation determination is the physical condition of the property under study. This can only be determined by a field inspection. A field inspection of the major electric and gas plant facilities owned by the Company in the Fitchburg area was conducted by representatives of both Raytheon Engineers & Constructors, Inc. and Fitchburg Gas and Electric Light Company.

Electric Plant

All transmission and distribution substations owned by the Company were inspected.

Gas Plant

Principal facilities inspected in the Fitchburg area are the LNG Facility in Westminister and the Propane Air-Peak Shaving Plant in Lunenburg.

During the course of the field inspection of the Company's properties, other representative plant investment was also observed, e.g., transmission towers, poles, overhead conduit, and general plant.

In addition to noting the condition of the property, attention was also given to identifying any property no longer used or useful and property physically retired but not removed from the books. During the course of our investigation we found no property that fell into these categories.

The inspection revealed that the condition of the Company's facilities that we visited was excellent and that housekeeping practices were also excellent.

V. SELECTION OF LIFE CHARACTERISTICS AND NET SALVAGE

To determine depreciation based on the age-life concept, an assignment of mortality characteristics and average lives for the various components of depreciable property must be made. Of equal importance is the assignment of future estimates of net salvage percentages. These assignments are accomplished after analyzing historical records through statistical studies, collecting and analyzing salvage and cost of removal information, and estimating the effects of present-day managerial decisions on future plant experience. This section presents a discussion of these three elements, which helped to form our judgment.

A. Curve Type and Average Life

Statistical studies were made to identify the historical life characteristics for each plant account that had sufficient data. The Simulated Plant Record - Balances Method and the Simulated Plant Record - Period Retirements Method, both described in Section III, were the statistical techniques applied.

It must be emphasized that although statistical determinations of life characteristics based on analysis of past experience are useful guides, they should not be thought of as mathematically certain quantifications of the mortality dispersion and average life the existing plant will experience in the future. Therefore, in interpreting the results of the statistical studies, consideration was given to the present physical characteristics of the property, management's future plans, and to all general causes which might bring about retirement. Attention was also given to the interrelationship of the average lives of the various accounts, as well as to the current depreciation practices of the utility industry concerning each account.

The causes for the retirement of physical property may be classified generally into three main groups:

(1) Wear, which includes corrosion, erosion, decay, the action of water, and actual physical wear.

(2) Casualty, including fire and vandalism; natural causes such as lightning, flood, tornado, and other failures because of hidden defects.

(3) Economic causes, the major elements of which are changes in labor costs, improvements in design, changes in the economy, requirements of a public authority, obsolescence and inadequacy.

Wear, for a group of like units of identical quality that are subject to exactly the same conditions of service and maintenance, produces a symmetrical pattern of retirements with respect to the average life. That is, the number of retirements at ages less than average life will be equal to the number of retirements at ages greater than average life and the maximum rate of retirements will occur at the average life of the group. Since physical units are not physically identical, do not operate under exactly similar conditions, and are not given exactly the same maintenance, the distribution of retirements tends to occur in a broad band of years, but the pattern will still tend to be symmetrical if wear is the only cause for retirement. The other two causes of retirement, casualty and economic causes, tend to distort the distribution of retirements from the symmetrical pattern and may move the mode (year of maximum retirement) to an age less than or greater than average life.

The average service life and survivor curve were selected for each account after consideration of: the general causes of retirement, the results of our inspections, experience with similar properties, results of previous Company depreciation reviews, results of the Simulated Plant Record analyses, future plans of the Company, industry experience, and the exercise of prudent engineering judgment.

B. Net Salvage

A definition of net salvage appears in Section III. The derivation of a net salvage percentage involves the forecasting of salvage value and the cost of removal to be incurred upon the retirement of property comprising an account. Net salvage is shown as a percent of the original cost investment. Trends for certain types of property can be observed where there has been some regular retirement activity and associated salvage and cost of removal. These trends can be used as a basis for estimating a prospective net salvage percentage. In our final estimate of net salvage, properties are assigned a percentage based upon ultimate disposal rather than an intermediate value based on reuse.

Our study considered all property that would generally be susceptible to net salvage with the exception of the Nuclear Plant functional group. In instances where accounting records lent themselves to analysis, our determination of net salvage was influenced somewhat by the results of such analyses. In our final determination of net salvage, appropriate consideration was given to the results of recent studies for the Company, our experience with other utilities, current policies followed by the industry in general in Massachusetts, and an AGA-EEI publication entitled "A Survey of Depreciation Statistics".

As for the decommissioning costs of it's nuclear plant investment, the Company pays an agreed upon amount monthly for the decommissioning of Millstone 3. For the purposes of this depreciation review, the nuclear plant investment was assigned a net salvage of zero. Where zero net salvage was assigned to other accounts, it was done on the assumption that salvage receipts and cost of removal would cancel. Where it was believed that the cost of removal would exceed the salvage value of the retirement property, negative net salvage was indicated.

The National Association of Regulatory Utility Commissioners (NARUC) in its book entitled *Public Utility Depreciation Practices*, devotes considerable attention to the subject of net salvage. The NARUC book emphasizes the importance of maintaining detailed accounting records regarding salvage values and the costs of removal associated with retirements in each class of depreciable plant. Such documentation is valuable in forecasting future net salvage. The book also notes that salvage is as important as average service lives and mortality characteristics in the ultimate determination of annual depreciation rates. A trend indicated from salvage records in recent years has led the NARUC to conclude that "... the tendency for costs of removal to increase more rapidly than material prices has resulted in an increasing number of instances where average net salvage is estimated to be negative."

This trend is evident in the recording of the Company's total annual net salvage. Positive net salvage was recorded throughout most of the 1980s, however each year from 1990 through 1996 significant net negative salvage was recorded. In addition, during a review of the Company's plant accounting practices in 1992, UNITIL instituted more accurate procedures in identifying cost of removal activity.

The net salvage percentages determined are composite rates for each account as a whole. It should be stressed that the composite rates may not be appropriate for the valuation of salvage of individual items of property included in any of the plant accounts appearing in the schedule.

The effects of the net salvage percentage assigned to each account are reflected both in the amounts calculated in our estimated accrued depreciation used for allocating the book reserve and in the annual depreciation accrual requirements.

Table V-I presents by property type and by primary plant account, the curve types, average lives, and net salvage percentages considered most appropriate for the primary plant accounts of the Company.

C. Special Items

Discussions were held with the management and staff of the Company regarding the managerial, engineering, operating and other consideration which would influence the selection of curve types, average lives, and net salvage percentages for our determination of the depreciation requirements. We also attempted to identify those property items which should be treated individually rather than on a group basis, e.g. production plant facilities. The introduction of known plans and actual past occurrences into this analysis results in a more accurate determination of depreciation requirements. With the exception of the nuclear plant decommissioning expenses, there were no special items depicted in this year's analysis of depreciable electric and gas plant investment.

Summary of Survivor Curve, Average Life and Net Salvage Percentage Estimates

ELECTRIC PROPERTY

Account No.	Description	Survivor Curve Type	Average Life	Net Salvage Percentage
	PRODUCTION PLANT			
311	Structures & Improvements	SQ	40	(20)
312	Boiler Plant Equipment	SQ	40	(20)
314	Turbo Generator Equipment	SQ	40	(20)
315	Accessory Electrical Equipment	SQ	40	(10)
316	Miscellaneous Power Plant Equipment	SQ	40	(10)
	NUCLEAR PLANT			
321	Structures & Improvements	SQ	40	
322	Reactor Plant Equipment	SQ	40	
323	Turbogenerator Units	SQ	40	
324	Accessory Electrical Equipment	SQ	40	
325	Miscellaneous Power Plant Equipment	SQ	40	
	TRANSMISSION PLANT			
351	Clearing Land & Rights of Way	$S_{5.0}$	60	0
352	Structures and Improvements	$S_{6.0}$	35	(50)
353	Station Equipment	$S_{3.0}$	35	(20)
354	Towers & Fixtures	$S_{5.0}$	50	(50)
355	Poles and Fixtures	$S_{5.0}$	35	(75)
356	Overhead Conductors & Devices	$R_{2.0}$	40	(70)
357	Underground Conduit	$S_{5.0}$	55	(75)
358	Underground Conductors & Devices	$S_{5.0}$	55	(50)
359	Roads & Trails	SQ	50	0

TABLE V-I
Sheet 2 of 4

Summary of Survivor Curve, Average Life and Net Salvage Percentage Estimates

ELECTRIC PROPERTY (Continued)

Account No.	Description	Survivor Curve Type	Average Life	Net Salvage Percentage
	DISTRIBUTION PLANT			
361	Structures and Improvements	$L_{1.0}$	25	(50)
362	Station Equipment	$R_{4.0}$	40	(20)
364	Poles, Towers & Fixtures	$R_{1.5}$	40	(75)
365	Overhead Conductors & Devices	$R_{4.0}$	40	(75)
366	Underground Conduit	$S_{6.0}$	60	(70)
367	Underground Conductors & Devices	$S_{5.0}$	40	(50)
368	Line Transformers	$S_{5.0}$	35	(30)
369	Services	$r_{4.0}$	45	(100)
370	Meters	$R_{4.0}$	45	(30)
371	Installation on Customers' Premices	$R_{2.0}$	15	(50)
372	Leased Property on Customers' Premices	$L_{4.0}$	7	30
373	Street Lighting & Signal Systems	$S_{2.0}$	10	(50)

TABLE V-I
Sheet 3 of 4

Summary of Survivor Curve, Average Life and Net Salvage Percentage Estimates
GAS PROPERTY

Account No.	Description	Survivor Curve Type	Average Life	Net Salvage Percentage
	PRODUCTION PLANT			
305	Structures & Improvements	$S_{5.0}$	50	(15)
311	Liquified Petroleum Gas Equipment	$R_{4.0}$	35	0
320	Other Equipment	$L_{0.0}$	20	10
	TRANSMISSION AND DISTRIBUTION PLANT			
365.2	Rights of Way	$R_{3.0}$	65	0
366	Structures and Improvements	$S_{5.0}$	50	(15)
367	Mains	$R_{3.0}$	65	(80)
369	Measuring and Regulating Station Equipment	$R_{0.5}$	30	(5)
380	Services	$S_{2.0}$	45	(100)
381	Meters	$R_{4.0}$	40	0
382	Meter Installations	$R_{3.0}$	45	(10)
383	House Regulators	$S_{2.0}$	40	0
386	Other Property on Customers' Premises	$S_{3.0}$	8	25

Summary of Survivor Curve, Average Life and Net Salvage Percentage Estimates

ELECTRIC, GAS, AND COMMON PROPERTY

GENERAL PLANT Account No.	Description	Survivor Curve Type	Average Life	Net Salvage Percentage
390	Structures and Improvements	$R_{1.5}$	40	(10)
391	Office Furniture and Equipment	$R_{3.0}$	15	10
393	Stores Equipment	$S_{5.0}$	35	5
394	Tools, Shop and Garage Equipment	$R_{2.0}$	35	5
395	Laboratory Equipment	$S_{2.0}$	35	5
396	Power Operated Equipment	$R_{0.5}$	20	5
397	Communication Equipment	$S_{4.0}$	12	5
398	Miscellaneous Equipment	$R_{4.0}$	35	5

VI. DETERMINATION OF ACCRUED AND ANNUAL DEPRECIATION REQUIREMENTS

A. Indicated Accrued Depreciation

A mortality dispersion curve represents a series of "death" probabilities with respect to time that is a characteristic of a retirement pattern of original properties in a primary plant account. The related survivor curve is a set of probabilities of survival at discrete ages over the total life of the final survivor in an account.

After determining the historical mortality patterns for each plant account and after considering present circumstances and future expectations, one pattern is selected to best describe the projected future behavior of each account. This pattern is crucial to the calculation of depreciation requirements as it provides an estimate of both the expected average service life and the expected average remaining service life of the survivors in the account, as functions of the entire life-cycle pattern.

The assignment of an average service life, net salvage percentage, and survivor pattern to surviving property allows the calculation of the indicated accrued depreciation reserve. This reserve is the depreciation that would have been accrued as of the study date had the mortality dispersion, net salvage, and average life information presently available been known at the original dates of capitalization. Any time significant changes in average life or net salvage occur in accounts which represent a major percentage of total investment, the indicated depreciation reserve deviates from its past relationship to the book reserve. This deviation is directly attributable to the revised average life and net salvage changes. (Iowa curve changes do not significantly affect the indicated depreciation reserve.) For this reason, the indicated book reserve is no longer as reliable a measure of book depreciation as it was in the past, however, it does provide a basis for allocating book reserves to each account.

In order to make the indicated accrued depreciation reserve calculation for each primary plant account, the surviving plant balances in service must be identified by year of capitalization. These data are maintained by the Company for all plant accounts in its

Continuing Property Record information system and these data were made available to us for this study. For these dated survivors, each vintage has a particular status with respect to its expected future accruals, and hence, its present indicated reserve requirement. Accrued depreciation percentages, which may be referred to as reserve ratio factors, are developed from the life characteristics and are multiplied by the appropriate surviving balances (by vintages) to determine the reserve requirement for each vintage. The sum of these products for all survivors for all vintages is the indicated accrued depreciation reserve.

B. Indicated Annual Depreciation

The indicated annual depreciation expense was calculated using the straight-line remaining life method. The indicated annual accrual expense is referenced to year-end 1997 so that appropriate accrual percentages can be calculated based on original cost amounts that will be reported to the regulatory agencies.

The future depreciation accrual rates are based upon the Iowa survivor curve and average service life assigned to each account. These two elements define the theoretical depreciation reserve and are used to calculate the remaining life for each account. The original cost adjusted for salvage less the allocated book depreciation reserve is divided by the statistically derived remaining life to determine the annual deprecation expense for each account.

The remaining life approach permits depreciating the difference between the book depreciation reserve and the indicated depreciation reserve on a consistent basis. However, the difference between the indicated depreciation reserve and Company's book depreciation reserve is $6,302,546 or 121% of the book depreciation reserve for gas plant. The 37 years composite remaining life of gas plant is an unreasonably long period to recover this deficiency. Therefore, we have identified the indicated and book depreciation reserve differences by primary plant and amortized these differences over a 15 year period.

VII. RESULTS AND RECOMMENDATIONS

A. Results

The results of our study of depreciation requirements for the electric, gas and common plant investment of the Company are summarized as of December 31, 1997 in Table VII-1. This table presents the summary of original cost of total depreciable plant in service, total book reserve, and the composite annual depreciation expense as recommended in this study. Detailed results depicting the allocated book reserve by property type, functional group, and plant account appear in Tables VII-2 through VII-4. The original cost investment is reflected in both tables.

The indicated accrued depreciation reserve for each plant account was used as the basis for allocating the Company's book reserve for electric, gas, and common plant. The annual accrual percentage shown for each account in Tables VII-2 through VII-4, provides our estimate of the original cost investment, which should be recouped on a year-by-year basis while the results of this study are in effect. This percentage is developed relative to the 1997 year-end plant in service. Our premise is that an account's retirements will follow the life and mortality dispersion pattern selected in this study and that expected net salvage, whether positive or negative, will be realized.

Table VII-1 shows the 1997 Company book depreciation reserve to be $30,102,476 and the theoretical reserve to be $43,628,915. The annual depreciation amount recommended by Raytheon for electric plant in service is $2,976,346 resulting in a composite annual depreciation requirement of 4.39 percent based on year-end plant in service. The annual depreciation amount recommended by Raytheon for gas plant in service is $1,337,951 resulting in a composite annual depreciation requirement of 4.85 percent based on year-end plant in service. The annual depreciation expense for gas plant incorporated a 15 year amortization of the difference between the indicated and book depreciation reserves. Relating the electric plant annual depreciation rate to average plant in service yields $2,897,301 and this may be compared to the Company's annual amount of $2,073,834. The gas plant annual depreciation rate to average plant in service computes to $1,300,079, compared to the

Company's annual amount of $638,144. These amounts include the alloted common plant investment.

The indicated annual accrual percent, as it applies to the total Company property, is a composite percentage. This composite percentage has been derived by application of individual percentages to the plant accounts comprising the Company's combined depreciable property. Each percentage, as selected for an individual plant account is considered to be the most appropriate for the property and conditions known to us as of the study period.

B. Recommendations

It is recommended that the Company increase its current depreciation accrual rates for electric and gas plant to be comparable to those derived in this study.

We recommend that the Company book its depreciation reserve by total property type, i.e., electric, gas, and common plant, and allocate it annually by functional group or plant account as determined in this Review. We also recommend that periodic reviews of depreciation requirements every 3 to 5 years be conducted in order to assess any significant changes in life characteristics and net salvage activity of the property. As an aid, it is suggested that the Company maintain its plant, salvage, and cost of removal records by primary account so that depreciation study data can be readily extracted. Results of these reviews, weighted by consideration of changes in accounting and engineering practices, changes in regulatory requirements, and such other factors as changes in the art, may provide the data to detect revisions in annual depreciation rates.

Table VII-1
Sheet 1 of 1

Fitchburg Gas & Electric Light Company
Depreciation of Plant Assets as of December 31, 1997

SUMMARY

Account Number	Account Description	Original Cost	Reallocated Book Depr. Res.	Indicated Accr. Depr. Res.	Indicated Annual Depr. Expense Amount	Indicated Annual Depr. Expense Percent
	Total Depreciable Electric Plant	$ 66,319,593	$ 24,472,337	$ 31,510,671	$2,901,449	4.37%
	Common Alloted to Electric Plant	1,448,163	262,055	381,555	74,897	5.17%
		$ 67,767,756	$ 24,734,392	$ 31,892,226	$2,976,346	4.39%
		Diff. between Indic. & Book		$ 7,157,834		
		Percent		28.9%		
	Total Depreciable Gas Plant [1]	$ 26,808,793	$ 5,223,221	$ 11,525,767	$1,296,548	4.84%
	Common Alloted to Gas Plant	800,538	144,863	210,922	41,403	5.17%
		$ 27,609,331	$ 5,368,084	$ 11,736,689	$1,337,951	4.85%
		Diff. between Indic. & Book		$ 6,368,605		
		Percent		118.6%		
	Total Utility Depreciable Plant	$ 95,377,087	$ 30,102,476	$ 43,628,915	$4,314,298	4.52%
		Diff. between Indic. & Book		$ 13,526,439		
		Percent		44.9%		

[1] The annual depreciation expense incorporates a 15 year amortization of the difference between the indicated and book depreciation reserves.

Fitchburg Gas & Electric Light Company
Depreciation of Plant Assets as of December 31, 1997

Account Number	Account Description	Original Cost	Reallocated Book Depr. Res.	Indicated Accr. Depr. Res.	Indicated Annual Depr. Expense Amount	Indicated Annual Depr. Expense Percent
Electric Plant						
Steam Production Plant						
311	Structures & Improvements	$ 961,125	$ 415,327	$ 534,777	$ 34,402	3.58%
312	Boiler Plant Equipment	4,067,997	1,915,163	2,465,971	149,868	3.68%
314	Turbogenerator Units	1,727,393	827,889	1,065,993	64,077	3.71%
315	Accessory Electric Equipment	666,005	303,694	391,038	22,999	3.45%
316	Misc. Power Plant Equipment	100,113	42,315	54,485	3,355	3.35%
	Total Steam Production Plant	$ 7,522,633	$ 3,504,389	$ 4,512,264	$ 274,700	3.65%
Nuclear Production Plant						
321	Structures & Improvements	$ 3,973,829	$ 801,529	$ 1,032,052	$ 107,131	2.70%
322	Reactor Plant Equipment	4,716,415	951,916	1,225,691	127,158	2.70%
323	Turbogenerator Units	1,378,290	272,127	350,392	37,081	2.69%
324	Accessory Electric Equipment	1,046,600	211,048	271,746	28,215	2.70%
325	Misc. Power Plant Equipment	247,821	48,576	62,546	6,663	2.69%
	Total Nuclear Production Plant	$ 11,362,955	$ 2,285,196	$ 2,942,427	$ 306,247	2.70%
Transmission Plant						
351	Clearing Land and R.O.W.	$ 216,370	$ 70,373	$ 90,613	$ 4,187	1.93%
352	Structures	127,214	65,507	84,347	6,417	5.04%
352.1	Structures-Joint Owned	11,384	3,978	5,122	535	4.70%
353	Station Equipment	4,883,846	1,912,234	2,462,199	194,544	3.98%
353.1	Station Equipment-Joint Owned	110,603	46,639	60,053	4,492	4.06%
354	Towers & Fixtures	77,736	49,686	63,976	2,965	3.81%
355	Poles & Fixtures	1,891,503	1,698,988	2,187,623	135,745	7.18%
355.2	Poles & Fixtures-Joint Owned	13,202	11,020	14,189	895	6.78%
356	Overhead Conductors	1,167,010	580,671	747,674	56,298	4.82%
356.2	Overhead Conductors-Joint Owned	3,303	1,931	2,487	165	5.00%
357	Underground Conduit	15,001	19,010	24,477	1,948	12.98%
358	Underground Conductors & Devices	248,422	231,576	298,178	12,836	5.17%
359	Roads & Trails	10,032	3,835	4,938	244	2.43%
	Total Transmission Plant	$ 8,775,626	$ 4,695,448	$ 6,045,876	$ 421,269	4.80%

Table VII-2
Sheet 2 of 2

Fitchburg Gas & Electric Light Company
Depreciation of Plant Assets as of December 31, 1997

Account Number	Account Description	Original Cost	Reallocated Book Depr. Res.	Indicated Accr. Depr. Res.	Indicated Annual Depr. Expense Amount	Indicated Annual Depr. Expense Percent
Distribution Plant						
361	Structures	$ 909,406	$ 401,048	$ 516,391	$ 61,989	6.82%
362	Station Equipment	5,360,795	1,635,291	2,105,607	178,303	3.33%
364	Poles, Towers & Fixtures	6,085,184	1,758,098	2,263,733	282,280	4.64%
365	Overhead Conductors	7,981,631	3,234,484	4,164,733	382,332	4.79%
366	Underground Conduit	915,383	523,464	674,014	30,362	3.32%
367	Underground Conductors	2,842,789	1,078,928	1,389,231	118,111	4.15%
368	Line Transformers	4,468,573	1,559,921	2,008,560	185,568	4.15%
368.1	Line Transformer Installations	2,120,052	532,293	685,382	84,566	3.99%
369	Services	2,999,669	1,249,418	1,608,755	144,230	4.81%
370	Meters	1,972,465	683,466	880,033	63,633	3.23%
370.1	Meter Installations	804,990	205,837	265,037	25,017	3.11%
371	Installation on Customers' Premises	786,991	253,262	326,101	105,552	13.41%
372	Leased Property on Cust. Premises	154,997	48,482	62,425	20,191	13.03%
373	Street Lighting & Signal Systems	945,145	732,958	943,760	204,828	21.67%
	Total Distribution Plant	$ 38,348,070	$ 13,896,949	$ 17,893,762	$1,886,961	4.92%
General Plant						
390	Structures & Improvements					
390.2	Improvements to Leased Serv. Bldg.	$ 224	$ 127	$ 163	$ 26	11.79%
391	Office Furniture	7,387	4,186	5,390	867	11.73%
391.1	Office Furniture-Joint Owned	25,204	9,051	11,654	1,869	7.42%
394	Tools, Shop & Garage Equipment	93,113	26,399	33,992	2,880	3.09%
395	Laboratory Equipment	108,548	22,762	29,308	3,208	2.96%
396	Power Operated Equipment	19,763	9,889	12,733	1,381	6.99%
397	Communications Equipment	4,636	425	547	379	8.17%
398	Miscellaneous Equipment	51,434	17,517	22,555	1,663	3.23%
	Total General Plant	$ 310,309	$ 90,355	$ 116,342	$ 12,272	
Total Depreciable Electric Plant		$ 66,319,593	$ 24,472,337	$ 31,510,671	$2,901,449	4.37%
	Clearing Account - Transp. Equip	689,698				
Total Depr. & Clearing Account		$ 67,009,291				
	Non-Depreciable Plant	960,164				
	Amortizable Plant	2,308,306				
Total Electric Plant		$ 70,277,761				

Table VII-3
Sheet 1 of 1

Fitchburg Gas & Electric Light Company
Depreciation of Plant Assets as of December 31, 1997

Account Number	Account Description	Original Cost	Reallocated Book Depr. Res.	Indicated Accr. Depr. Res.	Indicated Annual Depr. Expense Amount	Indicated Annual Depr. Expense Percent	Remaining Life	Diff. of Ind. to Book Res.	Deficiency in Annual Accr.	Accrual less Deficiency	15 Yr. Def. Recov.	Total Annual Accrual	Annual Accr. Rate
Gas Plant													
Mfg. Gas Production Plant													
305	Structures & Improvements	$ 153,760	22,963	$ 50,670	$ 4,313	2.81%	35.672	$ 27,707	$ 777	$ 3,536	$ 1,847	$ 5,384	3.50%
305.1	Improv. to Leased LNG Plant	147,480	11,483	25,338	3,718	2.52%	42.530	13,855	326	3,392	924	4,316	2.93%
311	Liquefied Petro. Gas Equipment	1,154,918	256,606	566,238	50,354	4.36%	17.840	309,632	17,356	32,998	20,642	53,640	4.64%
320	Other Equipment	180,050	16,448	36,295	9,381	5.21%	15.520	19,847	1,279	8,102	1,323	9,425	5.23%
320.1	Other Equip. for Leased LNG Plt.	125,902	12,835	28,322	6,698	5.32%	15.001	15,487	1,032	5,666	1,032	6,698	5.32%
Total Mfg. Gas Production Plant		$ 1,762,110	$ 320,335	$ 706,863	$ 74,464	4.23%		$ 386,528	$ 20,770	$ 53,694	$ 25,769	$ 79,463	4.51%
Transmission & Distribution Plant													
365.2	Rights of Way	$ 16,080	$ 2,646	$ 5,838	$ 325	2.02%	41.399	$ 3,192	$ 77	$ 247	$ 213	$ 460	2.86%
366	Structures & Improvements	40,169	12,471	27,520	1,668	4.15%	20.213	15,049	744	924	1,003	1,927	4.80%
367	Mains	13,050,467	2,607,882	5,754,655	425,517	3.26%	49.077	3,146,773	64,120	361,397	209,785	571,182	4.38%
369	Measuring and Regulating Sta. Eq.	807,489	71,619	158,037	31,803	3.94%	24.408	86,418	3,541	28,262	5,761	34,023	4.21%
380	Services	7,633,642	1,764,751	3,894,170	402,796	5.28%	33.522	2,129,419	63,523	339,273	141,961	481,234	6.30%
381	Meters	1,710,448	223,154	492,420	52,214	3.05%	28.484	269,266	9,453	42,761	17,951	60,712	3.55%
382	Meter Installations	1,460,293	161,090	355,468	41,243	2.82%	35.042	194,378	5,547	35,696	12,959	48,655	3.33%
383	House Regulators	45,834	11,636	25,677	1,944	4.24%	17.592	14,041	798	1,146	936	2,082	4.54%
Total Transmission & Distr. Plt.		$ 24,764,422	$ 4,855,249	$ 10,713,785	$ 957,510	3.87%		$ 5,858,536	$ 147,803	$ 809,707	$ 390,569	$ 1,200,276	4.85%
General Plant													
391	Office Furniture	$ 77,546	$ 18,425	$ 40,658	$ 8,204	10.58%	6.261	$ 22,233	$ 3,551	$ 4,653	$ 1,482	$ 6,135	7.91%
394	Tools, Shop & Garage Equipment	76,818	6,612	14,591	2,370	3.09%	28.002	7,979	285	2,085	532	2,617	3.41%
395	Laboratory Equipment	43,325	4,196	9,259	1,363	3.15%	27.126	5,063	187	1,176	338	1,514	3.49%
396	Power Operated Equipment	24,724	3,668	8,095	1,512	6.12%	13.107	4,427	338	1,174	295	1,469	5.94%
398	Miscellaneous Equipment	59,848	14,736	32,516	2,811	4.70%	14.983	17,780	1,187	1,624	1,185	2,810	4.69%
Total General Plant		$ 282,261	$ 47,638	$ 105,119	$ 16,259	5.76%		$ 57,481	$ 5,547	$ 10,713	$ 3,832	$ 14,545	5.15%
Total Gas Depreciable Plant		$ 26,808,793	$ 5,223,221	$ 11,525,767	$ 1,048,233	3.91%	36.674	$ 6,302,546	$ 171,855	$ 876,379	$ 420,170	$ 1,296,548	4.84%
	Clearing Account - Transp. Equip	351,149											
386	Other Property on Cust. Premises	1,921,479	354,619										
Total Depr. & Clearing Account		$ 29,081,421	$ 5,577,840										
	Non-Depreciable Plant	121,159											
	Amortizable Plant	160,661											
Total Gas Plant		$ 29,363,241											

Table VII-4
Sheet 1 of 1

Fitchburg Gas & Electric Light Company
Depreciation of Plant Assets as of December 31, 1997

Account Number	Account Description	Original Cost	Reallocated Book Depr. Res.	Indicated Accr. Depr. Res.	Indicated Annual Depr. Expense Amount	Indicated Annual Depr. Expense Percent
Common Plant						
390	Structures & Improvements	$ 579,759	$ 89,379	$ 130,137	$ 17,224	2.97%
390.2	Improvements to Leased Svc. Ctr.	535,811	65,010	94,655	15,618	2.91%
391	Office Furniture	531,400	182,247	265,353	44,329	8.34%
393	Stores Equipment	35,603	12,164	17,711	1,299	3.65%
394	Tools Shop & Garage Equipment	48,179	7,828	11,397	1,444	3.00%
396	Power Operated Equipment	7,703	2,834	4,126	514	6.67%
397	Communication Equipment	394,378	26,759	38,961	32,357	8.20%
398	Miscellaneous Equipment	115,868	20,698	30,137	3,516	3.03%
Total Depreciable Common Plant		$ 2,248,701	$ 406,918	$ 592,477	$ 116,300	5.17%
	Clearing Account - Transp. Equip	433,331				
Total Depr. & Clearing Account		$ 2,682,032				
	Non-Depreciable Plant	3,617				
	Amortizable Plant	2,708,943				
Total Common Plant		$ 5,394,592				